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FILM (54) FORMATION OF THIN

(57) Abstract:

of the resistance of wirings by using a mixed gas as a material gas which PURPOSE: To contrive the reduction includes disilane or trisilane and

a mixed gas including Si2H6 or Si3H8 and AsH3 is used and an Si film is temperature of 450°C-550°C. After CONSTITUTION: For a material gas, formed under a film forming

that, the film is made into a polycrystalline film by heat treatment. This is a polycrystalline silicon film which includes crystal particles whose diameter is 10 times its film thickness or larger and whose surface has unevenness of 5nm or less, and also includes arsenic. As a result, such Si film can be formed that realizes high productivity and conductivity and allows little impurity diffusion into a substrate Si.

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